

SOFT HANDOFF BETWEEN CELLULAR SYSTEMS EMPLOYING DIFFERENT  
ENCODING RATES

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Abstract of the Disclosure

10 A receiver (200) is provided receiving signals from differing base stations (BTS<sub>A</sub> and BTS<sub>B</sub>). The signal from BTS<sub>A</sub> is encoded using a first rate convolutional encoder while the signal transmitted from BTS<sub>B</sub> is encoded using a second rate convolutional encoder. Since the multiple base station links may result in a different number of symbols being received for each bit transmitted, the symbols received for each link cannot be simply combined. Therefore, in the preferred embodiment of the present invention, the resulting symbols are passed to multiple branch metric circuits (210-211), where branch metrics ( $\mu_i$ ) for the  
15 symbols are obtained. After the  $i^{\text{th}}$  branch metrics for the base stations are computed, the branch metrics for each base station are passed to a combiner (212) where they are combined.